

Claims

1. Method for operating a display device,
in particular within a graphical user interface (GUI),
comprising the steps of:
 - generating and/or receiving (S1) user position information (UPI) of a possible user (U) in relation to an involved display unit (DU) of said display device (DD),
 - selecting and/or changing (S2) a display mode for displaying display information (DI) on said display unit (DU) and/or said display information (DI) itself, taking into account said user position information (UPI),
 - displaying (S3) said display information (DI) or a derivative (DI') thereof on said display unit (DU) using said selected and/or changed display mode for said display unit (DU) and/or said selected and/or changed display information (DI) or the derivative (DI') thereof,
 - thereby enabling a particular convenient and/or reliable perception of displayed display information (DI, DI') by said possible user (U) in relation to the position (PU) of the user (U) with respect to the display unit (DU).
2. Method according to claim 1,
wherein said user position information (UPI) is designed to describe one or an arbitrary plurality or combination of the following aspects:
 - a distance (dU) of the possible user (U) and in particular of the user's eyes with respect to said display unit (DU),
 - a first orientation as an orientation of the user's or of the user's eyes location (PU) with respect to said display unit (DU), in particular describing a view angle of the user (U) with respect to said display unit (DU),
 - a second orientation or a torsional orientation between the view axis of the user (U) or the user's eyes and the display axis of said display unit (DU).
3. Method according to any one of the preceding claims,
wherein the step of generating and/or receiving (S1) said user position information (UPI) involves a process of measuring the distance (dU) between the possible user (U) or the user's eyes and said display unit (DU).
4. Method according to any one of the preceding claims,

wherein a distance or a position sensing means (PS) is used for measuring the distance (dU) between the possible user (U) or the user's eyes and the display unit (DU).

5 5. Method according to claim 4,

wherein an ultrasonic sensor means, an infrared sensor means, a camera device – in particular together with an image processing means and/or an image/face recognition process – or any combination or plurality thereof are used as said position sensing means (PS).

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6. Method according to any one of the preceding claims,

wherein by selecting and/or changing (S2) said display mode and/or said display information (DI) itself one or any combination or plurality of the following aspects is realized:

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- the size of the image and/or of parts thereof are adapted,
- the resolution of the image and/or of parts thereof are adapted,
- the representation of details of the image and/or of parts thereof is adapted, in particular with respect to the amount, the size, the color,
- the view angle of the user (U) is compensated,
- 20 - the torsional orientation between the view axis of the user (U) and the display axis of the display unit (DU) is compensated,
- the semantic contents of the image and/or of parts thereof are adapted.

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7. Method according to any one of the preceding claims,

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wherein with increasing distance (dU) between a possible user (U) and the display unit (DU) one or any combination or plurality of the following aspects is realized:

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- with respect to text information the font size and/or the line width are increased, in particular in a continuous manner,
- with respect to text information the amount of text is reduced and/or only respective comparable most important information contents are chosen for the step of displaying (S3), in particular by performing a process of re-phrasing,
- with respect to image information the amount of details to be displayed is
- 35 reduced, in particular in a continuous manner.

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8. Method to any one of the preceding claims,

wherein with decreasing distance (dU) between a possible user (U) and the display unit (DU) one or any combination or plurality of the following aspects is realized:

- with respect to text information the font size and/or the line width are decreased, in particular in a continuous manner,
- with respect to text information the amount of text is increased and/or also respective comparable less important information contents are chosen for the step of displaying (S3), in particular by performing a process of re-phrasing,
- with respect to image information the amount of details to be displayed is increased, in particular in a continuous manner.

9. Method for operating a man-machine interface unit and in particular a graphical user interface unit (GUI),

which comprises a method for operating a display device (DD) according to any one of the claims 1 to 8.

10. Apparatus, in particular graphical user interface unit or man-machine interface unit,

which is adapted to realize a method for operating a display device (DD) according to any one of the claims 1 to 8 or a method for operating a man-machine interface unit according to claim 9.

11. Computer program product comprising computer program means being adapted to realize a method for operating a display device according to any one of the preceding claims 1 to 8 or a method for operating a man-machine interface unit according to claim 9 when it is executed on a computer, a digital signal processing means and/or the like.

12. Computer readable storage medium comprising a computer program product according to claim 11.